



[4910-13]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

[Docket No. FAA-2013-0550]

Airworthiness Criteria: Proposed Airship Design Criteria for Lockheed Martin

Aeronautics Model LMZ1M Airship

AGENCY: Federal Aviation Administration (FAA), DOT

ACTION: Notice of availability of proposed design criteria and request for comments

SUMMARY: This notice announces the availability of and requests comments on the proposed design criteria for the Lockheed Martin Aeronautics model LMZ1M airship. On March 12, 2012 Lockheed Martin Aeronautics submitted an application for type certification for the model LMZ1M. The LMZ1M is a manned cargo lifting hybrid airship incorporating a number of advanced features. The Hybrid Certification Criteria (HCC) for Transport Category Hybrid Airships, Lockheed Martin Aeronautics Company Document Number 1008D0122 Rev. C dated January 31, 2013 was specifically developed for the LMZ1M.

DATES: Comments must be received on or before [INSERT A DATE 30 DAYS AFTER THE DATE OF PUBLICATION]

ADDRESSES: Send comments identified by docket number FAA-2013-0550 using any of the following methods:

- ☐ Federal eRegulations Portal: Go to <http://www.regulations.gov> and follow the online instructions for sending your comments electronically.

- Mail: Send comments to Docket Operations, M-30, U.S. Department of Transportation (DOT), 1200 New Jersey Avenue, SE., Room W12-140, West Building Ground Floor, Washington, D.C., 20590-0001.
- Hand Delivery of Courier: Take comments to Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue, S.E., Washington, D.C., between 9 a.m., and 5 p.m., Monday through Friday, except Federal holidays.
- Fax: Fax comments to Docket Operations at 202-493-2251.

Privacy: The FAA will post all comments it receives, without change, to <http://regulations.gov>, including any personal information the commenter provides. Using the search function of the docket web site, anyone can find and read the electronic form of all comments received into any FAA docket, including the name of the individual sending the comment (or signing the comment for an association, business, labor union, etc.). DOT's complete Privacy Act Statement can be found in the Federal Register published on April 11, 2000 (65 FR 19477-19478), as well as at <http://DocketsInfo.dot.gov>.

Docket: Background documents or comments received may be read at <http://www.regulations.gov> at any time. Follow the online instructions for accessing the docket or go to the Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue, SE., Washington, D.C., between 9 a.m., and 5 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Mr. Albert Mercado, Federal Aviation Administration, Small Airplane Directorate, Aircraft Certification Service, 901 Locust, Room 301, Kansas City, MO 64106, telephone (816) 329-4119, facsimile (816) 329-4090.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to comment on the proposed design criteria by submitting such written data, views, or arguments as they may desire. Commenters should identify the proposed design criteria on the Lockheed Martin Aeronautics model LMZ1M airship and submit comments, in duplicate, to the address specified above. All communications received on or before the closing date for comments will be considered by the Small Airplane Directorate before issuing the final design criteria.

Background

On March 12, 2012 Lockheed Martin Aeronautics submitted an application for type certification for the model LMZ1M airship. The LMZ1M is a hybrid airship incorporating a number of advance features. The tri-lobed airship envelope has 1,285,000 cubic foot displacement incorporating four thrusters to allow thrust vectoring. Thrust vectoring and control surface motions are controlled through a vehicle management system using electronic fly by-wire controls. Rather than conventional landing gear, the LMZ1M uses air cushion landing system (ACLS) for landing and ground operations. The LMZ1M is a manned cargo lifting hybrid airship with a gondola accommodating eight passengers and two crewmembers and a large cargo bay, and external load capabilities.

Proposed Design Criteria

Applicable Airworthiness Criteria under 14 CFR part 21

The only applicable requirement for airship certification in the United States is FAA document “FAA-P-8110-2, Airship Design Criteria (ADC),” dated November 2, 1987 with Change 1, dated July 24, 1992 and Change 2, dated July 24, 1992. This document has been the basis of certification of airships in the United States for many years. The ADC is inadequate for

an aircraft with the size and advanced features of the LMZ1M. Given the size and weight of the LMZ1M and in accordance with 14 CFR Part 21.17(b), the level of safety should be commensurate with other transport category aircraft. The “Hybrid Certification Criteria (HCC) for Transport Category Hybrid Airships,” Lockheed Martin Aeronautics Company Document Number 1008D0122 Rev. C dated January 31, 2013 was specifically developed for the LMZ1M. This criteria is based on “FAA P-8110-2, Airship Design Criteria (ADC),” the “Transport Airship Requirements (TAR)”, dated March 2000, 14 CFR Part 29 - Airworthiness Standards: Transport Category Rotorcraft and to a lesser extent 14 CFR Parts 23, 25, 33 and 35.

Certification Basis

The Hybrid Certification Criteria (HCC) for Transport Category Hybrid Airships, Lockheed Martin Aeronautics Company Document Number 1008D0122 Rev. C dated January 31, 2013.

Issued in Kansas City, Missouri, on May 17, 2013.

Earl Lawrence
Manager, Small Airplane Directorate
Aircraft Certification Service